Manitoba
Agriculture

nformation Update

Guidelines For Estimating

Backgrounding Costs

For Weight Range of 500 - 900 lbs

Based on 500 Head

DATE: September, 2000

The following budget is an estimate of the costs of production associated with backgrounding feeder calves. The purpose of this budget is to assist Manitoba livestock producers to calculate their own costs and take into consideration the factors that should be included when budgeting to determine breakeven prices.

Backgrounding generally refers to the assembling, feeding and managing calves from weaning until they are put onto a high concentrate finishing ration. In general calves fed from weaning to 800-900 lbs are referred to as backgrounded feeders. An example of a typical backgrounding operation would be, feed 500 pound steers to gain 1.75 - 2.75 lbs per day for approximately 100 - 200 days to produce 800-900 lbs backgrounded feeders.

The assumptions on which costs are calculated are clearly defined in the supporting pages. When interpreting these costs for an individual situation, adjustments may be required. Note that on-farm feed costs are based on market prices at the farm. It is assumed that all feed is grown on the farm, except for supplements. Each assumption must be examined and adjustments made, where necessary, to apply to the producer's own situation.

Backgrounding Cattle Production Cost Summary 2000

A. Operating Costs	Cost/Head	Total	Your Cost
1. Feed Costs			
1.01 Ground Barley	43.33	21,665	
1.02 Barley Silage	68.00	34,000	
1.03 Hay	1.60	800	
1.04 Supplement	17.20	8,600	
Total Feed Costs	**$130.13**	**$65,065**	
2. Other Operating Costs			
2.01 Feeder Cost	811.25	405,625	
2.02 Straw	4.80	2,400	
2.03 Veterinary Medicine & Supplies	15.08	7,540	
2.04 Annual Fuel & Repair Costs	4.20	2,100	
2.05 Utilities	5.40	2,700	
2.06 Feeder Selling Cost	27.00	13,500	
2.07 Insurance	6.00	3,000	
2.08 Manure Removal	5.40	2,700	
2.09 Barn & Office Supplies	0.32	160	
2.10 Death Loss	13.45	6,727	
Subtotal Operating Costs	1,023.03	511,517	
2.11 Operating Interest	34.17	17,086	
Total Operating Costs	**$1,057.20**	**$528,603**	
B. Fixed Costs			
3. Depreciation			
3.01 Buildings	5.29	2,645	
3.02 Machinery & Equipment	12.00	6,000	
4. Investment			
4.01 Buildings	3.23	1,617	
4.02 Machinery & Equipment	4.50	2,250	
Total Fixed Costs	**$25.02**	**$12,512**	
Total Operating and Fixed Costs	**$1,082.23**	**$541,115**	
5. Labour	20.00	10,000	
Total Cost of Production	**$1,102.23**	**$551,115**	

Cost per lb of gain sold	$/cwt	
Feed Costs	$37.61	
Operating Costs	$74.34	
Operating & Fixed Costs	$81.57	
Total Costs	$87.35	
Breakeven Selling Price		
Operating Costs	$124.96	
Operating & Fixed Costs	$127.92	
Total Costs	$130.29	

Assumptions

1. Average daily gain (ADG) was assumed to be 2.5 lbs/day.
2. It was assumed the feeder steer weighed in at 500 lbs. shrunk weight, and was raised to 900 lbs (846 lbs after 6 % shrink).
3. Days on feed was 160.
4. Investment in facilities and equipment was assumed to handle 500 head.

Backgrounding Cattle Production Cost Worksheet

A. Operating Costs			Your Cost
1. Feed Costs			
1.01 Ground Barley			
	160	days on ground barley	
x	6.50	lbs/feeder/day	
=	21.7	bushels feed	
x	$2.00	/bu	
=	**$43.33**	**/feeder**	
1.02 Barley Silage			
	160	days on silage	
x	34	lbs/feeder/day	
=	2.72	tons fed	
x	$25.00	/ton	
=	**$68.00**	**/feeder**	
1.03 Hay			
	15	days on hay	
x	5.0	lbs/feeder/day	
=	0.04	tons feed	
x	$40.00	/ton	
=	**$1.60**	**/feeder**	
1.04 Supplement(Salt,Minerals,Vitamins, Ionophore)			
	160	days on supplement	
x	1.00	lbs/feeder/day	
=	0.08	tons feed	
x	$215.00	/ton	
=	**$17.20**	**/feeder**	

2. Other Operating Costs

2.01 Feeder Cattle Cost

Commission	$5.00	/feeder	_____
Trucking-in	$1.25	/cwt	_____
x	500	lbs/feeder	_____
+	100	lbs/cwt	_____
=	$6.25	/feeder	_____
Feeder	500	lbs/feeder	_____
x	$160.00	/cwt	_____
+	100	lbs/cwt	_____
=	$800.00	/feeder	_____
Total =	**$811.25**	**/feeder**	_____

2.02 Straw

	4.0	lbs/feeder/day	_____
x	160	days on feed	_____
x	$15.00	/ton	_____
=	**$4.80**	**/feeder**	_____

2.03 Veterinary Medicine & Supplies

Cattle Medication

	$5.40	IBR,BVD,PI3,BRSV,etc.	_____
+	$0.64	Vitamin A-D	_____
+	$3.00	External & Internal Parasites	_____
+	$0.55	Blackleg	_____
+	$1.61	Growth Implants	_____
+	$1.50	Antibiotics	_____
=	$12.70	/feeder	_____

Herd Health Program

Professional Services

	$90.00	/hour charge	_____
x	10.00	hours	_____
+	500	feeder cattle	_____
=	$1.80	/feeder	_____

Transportation Costs

	$0.90	/km charge	_____
x	80	kilometres	_____
x	4	visits	_____
+	500	feeder cattle	_____
=	$0.58	/feeder	_____
Total =	**$15.08**	**/feeder**	_____

2.04 Annual Fuel & Repair Costs

	$850.00	repairs	_____
+	$1,250.00	fuel costs	_____
+	500	feeder cattle	_____
=	**$4.20**	**/feeder**	_____

2.05 Utilities

	$2,700.00	cost/year	_____
+	500	feeder cattle	_____
=	**$5.40**	**/feeder**	_____

2.06 Feeder Selling Cost

Trucking

	900	lbs/feeder	_____
÷	100	lbs/cwt	_____
x	$1.25	trucking cost/cwt	_____
=	$11.25	/feeder	_____

Selling Commission

	$15.00	commission	_____
+	$0.75	insurance	_____
=	$15.75	/feeder	_____

Total =	**$27.00**	**/feeder**	_____

2.07 Insurance

	$133,790.00	building & equipment investment	_____
x	$0.60	/$100 capital	_____
÷	100	/$100	_____
+	500	feeder cattle	_____
=	$1.61	/feeder	_____
	$481,250.00	herd investment	_____
x	$0.45	/$100 capital	_____
÷	100	/$100	_____
+	500	feeder cattle	_____
=	$4.33	/feeder	_____
	$30.00	additional coverage for liability	_____
+	500	feeder cattle	_____
=	$0.06	/feeder	_____

Total =	**$6.00**	**/feeder**	_____

2.08 Manure Removal

	$2,700.00	annual removal cost	
+	500	feeder cattle	
=	**$5.40**	**/feeder**	

2.09 Barn & Office Supplies

	$160.00	total barn expenses	
+	500	feeder cattle	
=	**$0.32**	**/feeder**	

2.10 Death Loss

	$811.25	feeder cattle cost	
+	$982.58	maximum value	
÷	2	average	
x	1.50	% mortality rate	
=	**$13.45**	**/feeder**	

2.11 Operating Interest

(Operating interest is charged on one half the subtotal operating costs)

	$811.25	feeder cost	
+	$105.89	½ of feed & other costs	
x	8.50	% operating interest	
x	160	days on feed	
÷	365	days /year	
=	**$34.17**	**/feeder**	

Capital Costs

Buildings,Corrals & Water System	
Windbreak fence	$4,200
Pens	$3,542
Handling Facilities	$4,000
Waterers	$4,000
Gates	$1,280
Feeders	$1,500
Bunk Feeders	$18,768
Well & Pressure System	$3,500
Grain Bin	$3,000
Landscaping	$15,000
Total	**$58,790**
Machinery & Equipment	
Tractor & Loader	$50,000
Miscellaneous	$25,000
Total	**$75,000**
Total Investment	**$133,790**

B. Fixed Costs

3. Depreciation $\frac{\text{Original Cost - Salvage Value}}{\text{Useful Life}}$

3.01 Buildings

	$58,790	original cost
-	$5,879	salvage value
÷	20	years useful life
÷	500	feeder cattle
=	**$5.29**	**/feeder**

3.02 Machinery & Equipment

	$75,000	original cost
-	$15,000	salvage value
÷	10	years useful life
÷	500	feeder cattle
=	**$12.00**	**/feeder**

4. Investment $\frac{\text{Original Cost + Salvage Value}}{2}$ **x Investment Rate**

4.01 Buildings

	$58,790	original cost	_____
+	$5,879	salvage value	_____
÷	2	average	_____
x	5.00	% investment rate	_____
÷	500	feeder cattle	_____
=	**$3.23**	**/feeder**	_____

4.02 Machinery & Equipment

	$75,000	original cost	_____
+	$15,000	salvage value	_____
÷	2	average	_____
x	5.00	% investment rate	_____
÷	500	feeder cattle	_____
=	**$4.50**	**/feeder**	_____

5. Labour

	2.0	hours/feeder/year	_____
÷	$10.00	/hour	_____
=	**$20.00**	**/feeder**	_____

Breakeven Calculations

Cost per lb of gain sold (shrunk weight)

Feed Costs		$130.13	feed cost
	÷	346	lbs gained weight
	=	**$0.38**	**/lb (gain sold)**
Operating Costs		$1,057.20	operating costs
	-	$800.00	feeder cost
	÷	346	lbs gained weight
	=	**$0.74**	**/lb (gain sold)**
Operating & Fixed		$1,082.23	operating & fixed costs
	-	$800.00	feeder cost
	÷	346	lbs gained weight
	=	**$0.82**	**/lb (gain sold)**
Total Costs		$1,102.23	operating & fixed costs
	-	$800.00	feeder cost
	÷	346	lbs gained weight
	=	**$0.87**	**/lb (gain sold)**

Breakeven selling price (shrunk weight)

Operating Costs		$1,057.20	operating costs
	÷	846	lbs shrunk weight
	=	**$1.25**	**/lb**
Operating & Fixed		$1,082.23	operating costs
	÷	846	lbs shrunk weight
	=	**$1.28**	**/lb**
Total Costs		$1,102.23	operating costs
	÷	846	lbs shrunk weight
	=	**$1.30**	**/lb**

For more information contact your local Manitoba Agriculture and Food Office.

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Backgrounding Feedlot Facilities